

Appl. No. 09/668,786

Amdt. dated June 8, 2004

Reply to Office Action of March 11, 2004

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions, and listings, of claims:

- 1           1.       (Original) A system of indicating a message size, comprising:  
2                   a controller adapted to receive a first message containing a data portion  
3       and an indication of a size for the data portion,  
4                   the controller adapted to modify the indication to indicate a different size  
5       for the data portion.
  
- 1           2.       (Original) The system of claim 1, wherein the controller is further adapted  
2       to determine a maximum size of data capable of being communicated along a  
3       downstream path, the controller modifying the indication based on the determination.
  
- 1           3.       (Original) The system of claim 1, wherein the data portion size indication  
2       comprises a Transmission Control Protocol maximum segment size indication.
  
- 1           4.       (Original) The system of claim 1, wherein the controller is further adapted  
2       to receive the first message from a client system over a local area network.
  
- 1           5.       (Original) The system of claim 4, wherein the controller is further adapted  
2       to receive the first message from the client system over an Ethernet network.
  
- 1           6.       (Original) The system of claim 1, wherein the first message comprises an  
2       Ethernet frame.
  
- 1           7.       (Original) The system of claim 6, wherein the data portion of the Ethernet  
2       frame carries an Internet Protocol packet.
  
- 1           8.       (Original) The system of claim 1, wherein the controller is further adapted  
2       to transmit a second message containing the modified indication.

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1           9.     (Original) The system of claim 8, wherein the first message comprises a  
2 first data portion and a first control portion, and wherein the second message comprises a  
3 second data portion and a second control portion, the second data portion carrying a  
4 control element not carried in the first data portion.

1           10.    (Original) The system of claim 9, wherein the control element in the  
2 second data portion comprises a Point-to-Point Protocol control element.

1           11.    (Original) The system of claim 9, wherein the control element in the  
2 second data portion comprises a Point-to-Point over Ethernet control element.

1           12.    (Original) The system of claim 8, wherein the data portion size indication  
2 comprises a Transmission Control Protocol maximum segment size, wherein the  
3 maximum segment size in the first message indicates a length of 1,460 bytes and the  
4 maximum segment size in the second message indicates a length of 1,452 bytes.

1           13.    (Original) The system of claim 1, wherein the controller is further adapted  
2 to modify the indication based on usage of a predetermined communications protocol.

1           14.    (Original) The system of claim 13, wherein the predetermined  
2 communications protocol comprises a Point-to-Point over Ethernet protocol.

1           15.    (Original) The system of claim 1, wherein the indication indicates a  
2 maximum size for the data portion.

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1           16.   (Currently Amended) A method of indicating a message size performed by  
2 a system, comprising:

3                   receiving, from a first network element, a first message to establish a  
4 connection between the first network element and a second network element, the first  
5 message containing a data portion and an indication of a length of a the data portion for  
6 messages to be communicated between the first and second network elements; and  
7                   adjusting a value of the indication to indicate a different length; and  
8                   sending a second message, to the second network element, to establish a  
9 connection between the first and second network elements, the second message  
10 containing the adjusted value of the indication.

1           17.   (Original) The method of claim 16, wherein adjusting the value of the  
2 indication is based on a characteristic of a link between the system and another node.

1           18.   (Original) The method of claim 17, wherein adjusting the value of the  
2 indication is based on a maximum message size supported by the link.

1           19.   (Original) The method of claim 17, wherein adjusting the value of the  
2 indication is based on usage of a predetermined communications protocol in the link.

1           20.   (Original) The method of claim 19, wherein adjusting the value of the  
2 indication is based on usage of a Point-to-Point over Ethernet protocol in the link.

1           21.   (Original) The method of claim 16, wherein receiving the message  
2 comprises receiving a message having a Transmission Control Protocol maximum  
3 segment size.

1           22.   (Original) The method of claim 16, wherein the indication indicates a  
2 maximum length of the data portion.

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1           23.   (Currently Amended) An article comprising at least one storage medium  
2   containing instructions for indicating a message size, the instructions when executed  
3   causing a system to:

4                receive, from a first network element, a first message containing an  
5   indication of a size of ~~at least a~~ data portion for messages to be communicated between  
6   the first network element and a second network element of the message; and

7                modify the indication to indicate a different size; and  
8                send a second message in response to the first message, the second  
9   message containing the modified indication.

1           24.   (Original) The article of claim 23, wherein the indication comprises a TCP  
2   maximum segment size indication.

1           25.   (Currently Amended) The article of claim 23, wherein the instructions  
2   when executed cause the system to determine the size of the data portion for ~~of the~~  
3   message messages supported by a communications path and to modify the indication  
4   based on the determination.

1           26.   (Original) The article of claim 23, wherein the instructions when executed  
2   cause the system to modify the indication based on whether a predetermined  
3   communications protocol is employed in a communications path.

1           27.   (Original) The article of claim 26, wherein the predetermined  
2   communications protocol comprises a Point-to-Point Protocol.

1           28.   (Original) The article of claim 26, wherein the predetermined  
2   communications protocol comprises a Point-to-Point over Ethernet protocol.

1           29.   (Cancelled)

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1           30.   (Currently Amended) The article of claim ~~29~~ 23, wherein the instructions  
2   when executed cause the system to receive another response message having a size  
3   dependent on the modified indication.

1           31.   (Currently Amended) A data signal embodied in a carrier wave and  
2   containing instructions for indicating a message size, the instructions when executed  
3   causing a system to:  
4                receive a first message containing ~~a data portion~~ and an indication of a  
5   length of ~~the a~~ a data portion for messages between first and second network elements; and  
6                adjust a value of the indication to indicate a different length; and  
7                send a second message in response to the first message, the second  
8   message containing the adjusted value of the indication.

1           32.   (Original) A method of indicating a message size, comprising:  
2                receiving a message containing a maximum segment size value;  
3                determining a maximum data size supportable by a link between the  
4   system and another node;  
5                comparing the determined maximum data size with the maximum segment  
6   size value; and  
7                modifying the maximum segment size value based on the determination.

1           33.   (Original) The method of claim 32, wherein comparing the determined  
2   maximum data size comprises computing a maximum segment size value and comparing  
3   the computed maximum segment size value with the maximum segment size value in the  
4   message.

1           34.   (Original) The method of claim 32, further comprising sending a message  
2   containing the modified maximum segment size value over the link.

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1           35.   (Original) The method of claim 32, wherein receiving the message  
2 comprises receiving a message containing a Transmission Control Protocol header that  
3 contains the maximum segment size value.

1           36.   (Original) An article comprising at least one storage medium containing  
2 instructions for indicating a message size, the instructions when executed causing a  
3 system to:  
4               receive a message containing a maximum segment size value;  
5               determine a maximum data size supportable by a link between the system  
6 and another node;  
7               compare the determined maximum data size with the maximum segment  
8 size value; and  
9               modify the maximum segment size value based on the determination.

1           37.   (Original) A system for indicating a message size, comprising:  
2               means for receiving a message containing a maximum segment size value;  
3               means for determining a maximum data size supportable by a link  
4 between the system and another node;  
5               means for comparing the determined maximum data size with the  
6 maximum segment size value; and  
7               means for modifying the maximum segment size value based on the determination.

1           38.   (New) The system of claim 1, wherein first message comprises a message  
2 to establish a connection between a first network element and a second network element,  
3 the message to establish the connection containing the indication of the size for the data  
4 portion,  
5               wherein the controller is adapted to transmit a second message to establish  
6 the connection between the first network element and the second network element in  
7 response to the first message, the second message containing the modified indication.

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1           39.     (New) The system of claim 38, wherein the controller is adapted to send  
2     the second message containing the modified indication to the second network element.

1           40.     (New) The article of claim 23, wherein receiving the first message  
2     comprises receiving a first message to establish a session between the first and second  
3     network elements, and  
4                 sending the second message containing the modified indication comprises  
5     a second message to establish the session between the first and second network elements.

1           41.     (New) The article of claim 40, wherein receiving the first message  
2     comprises receiving a first message containing a Transmission Control Protocol (TCP)  
3     SYN field set to an active state; and  
4                 sending the second message comprises sending a second message  
5     containing the modified indication and a TCP SYN field set to an active state.